

**Listing of Claims:**

Claims 1-5 (Canceled)

6. (Currently Amended) A variable shape mirror ~~of claim 5,~~  
comprising:

a thin film having a reflecting plane;

a member for supporting the thin film;

5 means for deforming the thin film; and

a sensor formed in part of the thin film for detecting  
deformation of the thin film;

10 wherein said sensor ~~for detecting the deformation of the  
thin film is~~ comprises a distortion sensor formed on ~~the~~ an outer  
circumference of the thin film, and the outer circumference of  
the thin film is greater in ~~film~~ thickness ~~as compared with the~~  
than a central part of the thin film.

7. (Currently Amended) A variable shape mirror comprising:  
a frame member having at least a first opening and a second  
opening;

5 a first thin film having a reflecting plane supported in the  
first opening of the frame member;

a second thin film supported in the second opening of the  
frame member;

means ~~which deforms~~ for deforming the first thin film and  
second thin film by applying an equal fluid pressure to the first  
10 thin film and second thin film; and

a sensor formed in part of the second thin film for  
detecting ~~the~~ deformation of the second thin film.

8. (Currently Amended) ~~A~~ The variable shape mirror of  
claim 7, wherein:

said frame member ~~is mainly composed~~ consists essentially of  
single crystal silicon,

5 said second thin film ~~has~~ comprises a protrusion projecting  
from the frame member ~~made of a thin film of single crystal~~  
~~silicon,~~ in ~~the~~ a peripheral area of the second opening, and

said sensor ~~for detecting the deformation of the second thin~~  
~~film~~ is formed on the protrusion.

Claim 9 (Canceled)